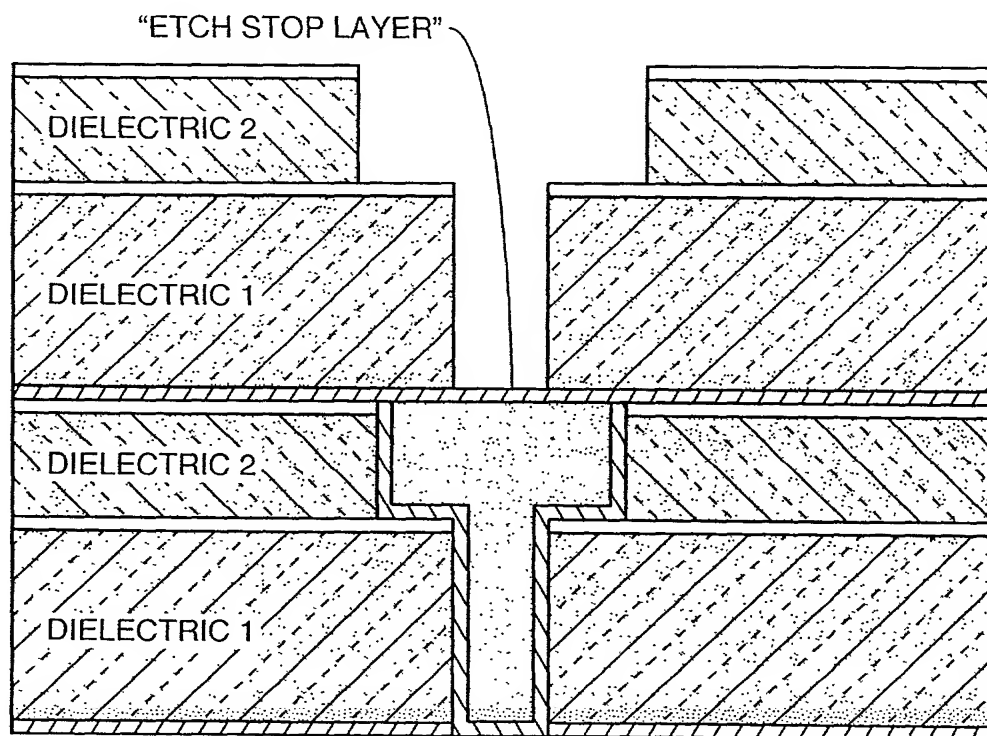


**FIG. 1**



**FIG. 2**

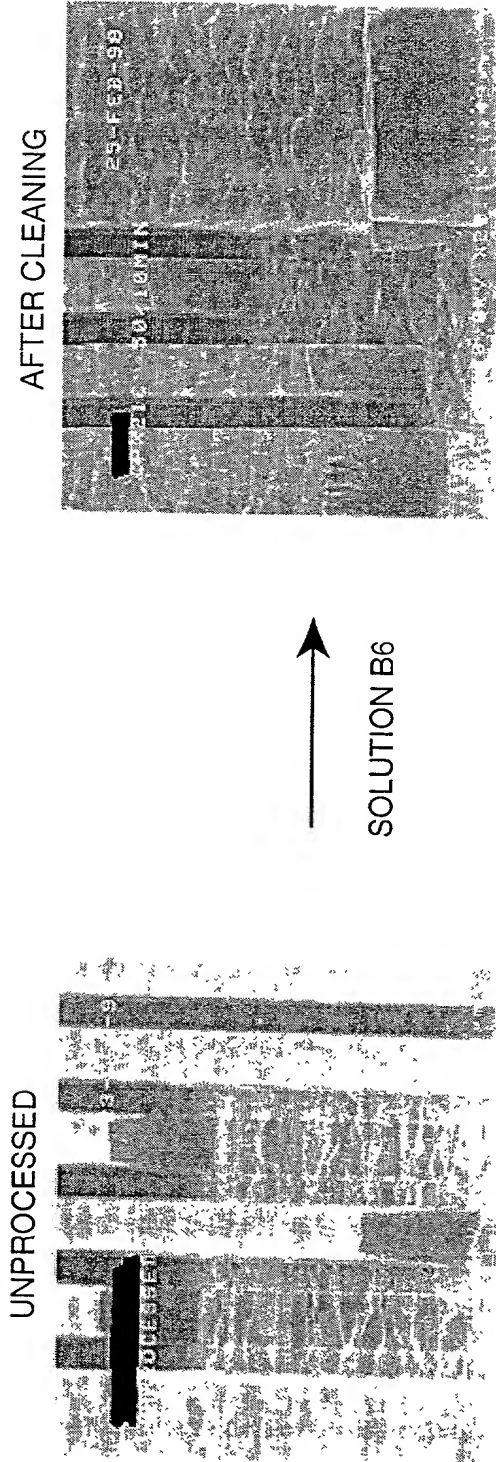


FIG.\_3A

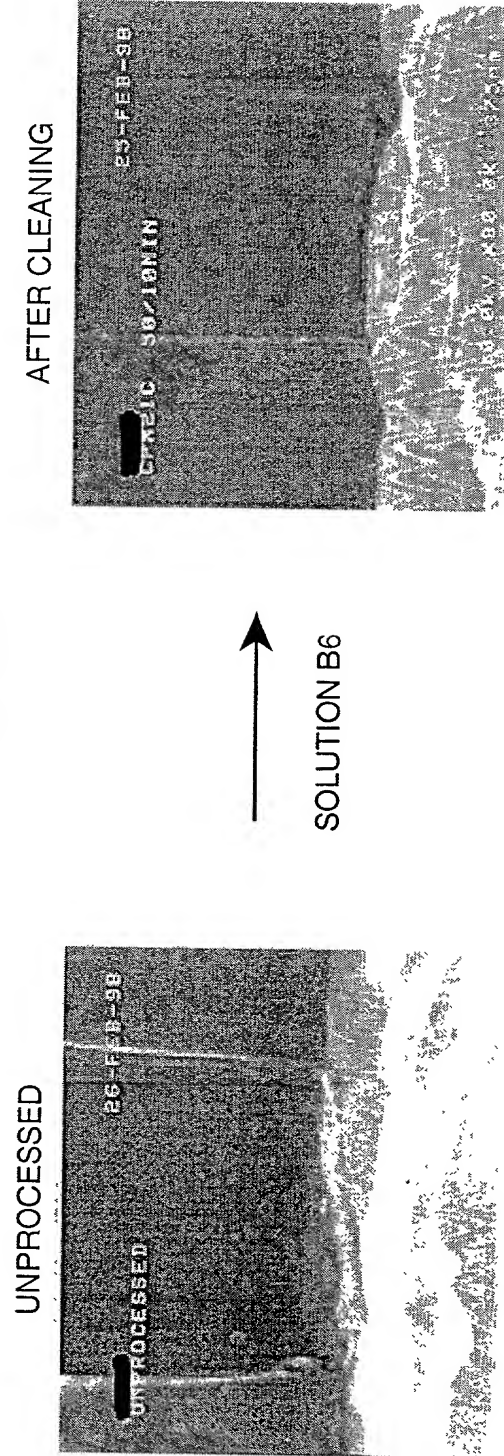
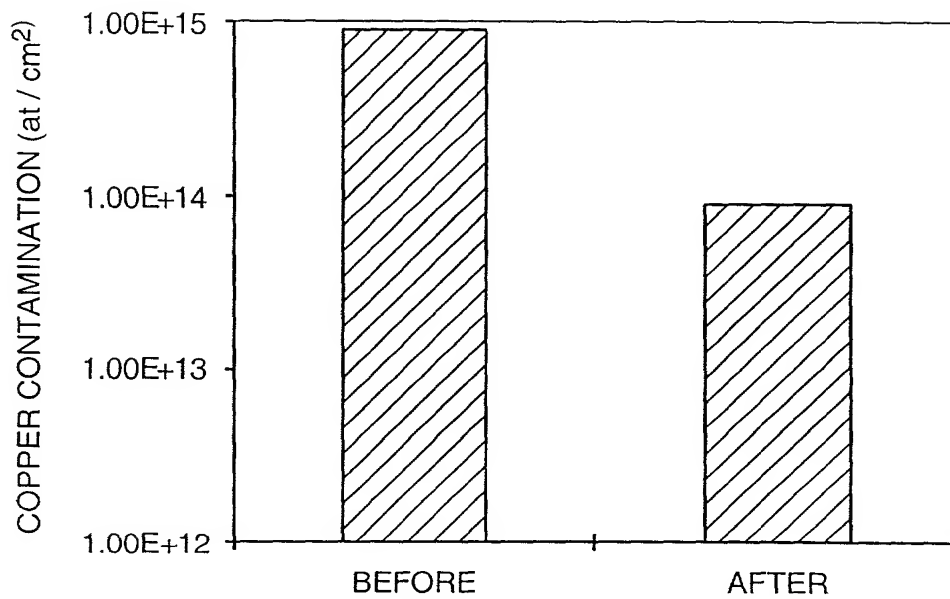


FIG.\_3B

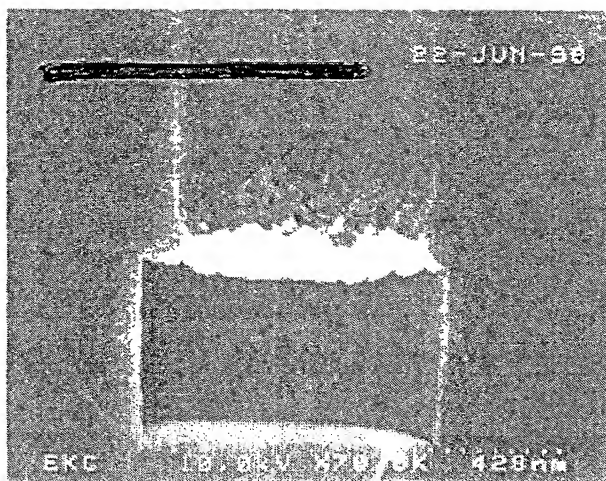
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**FIG.\_4**

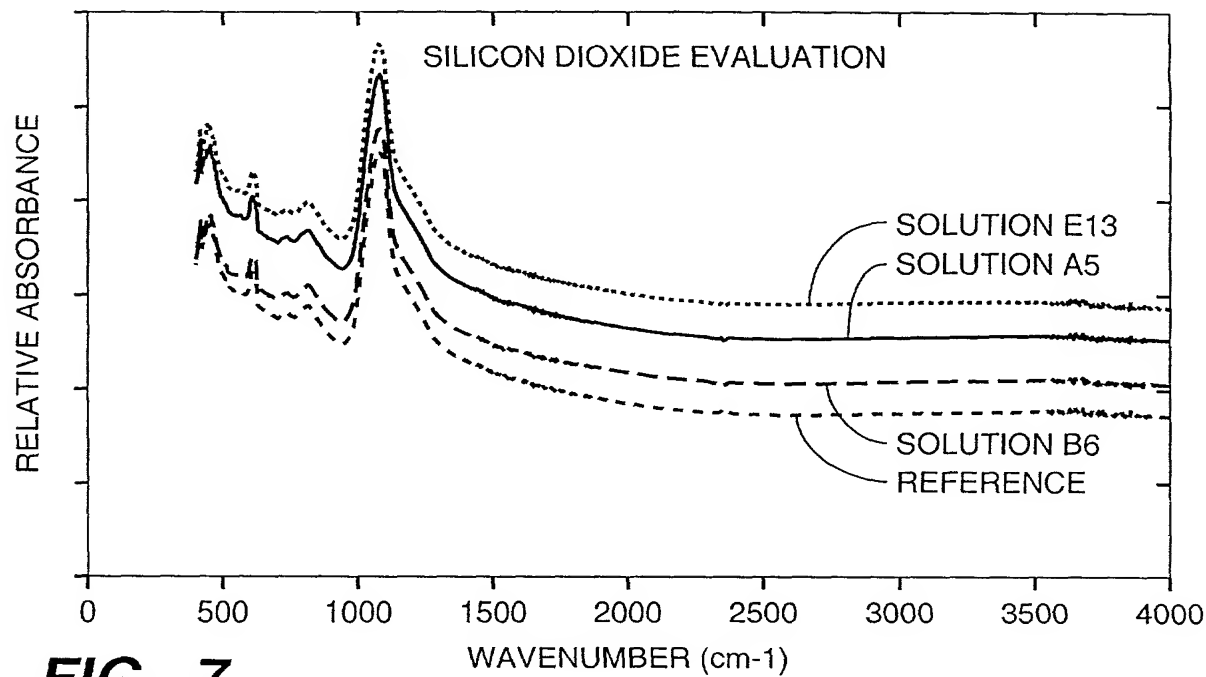
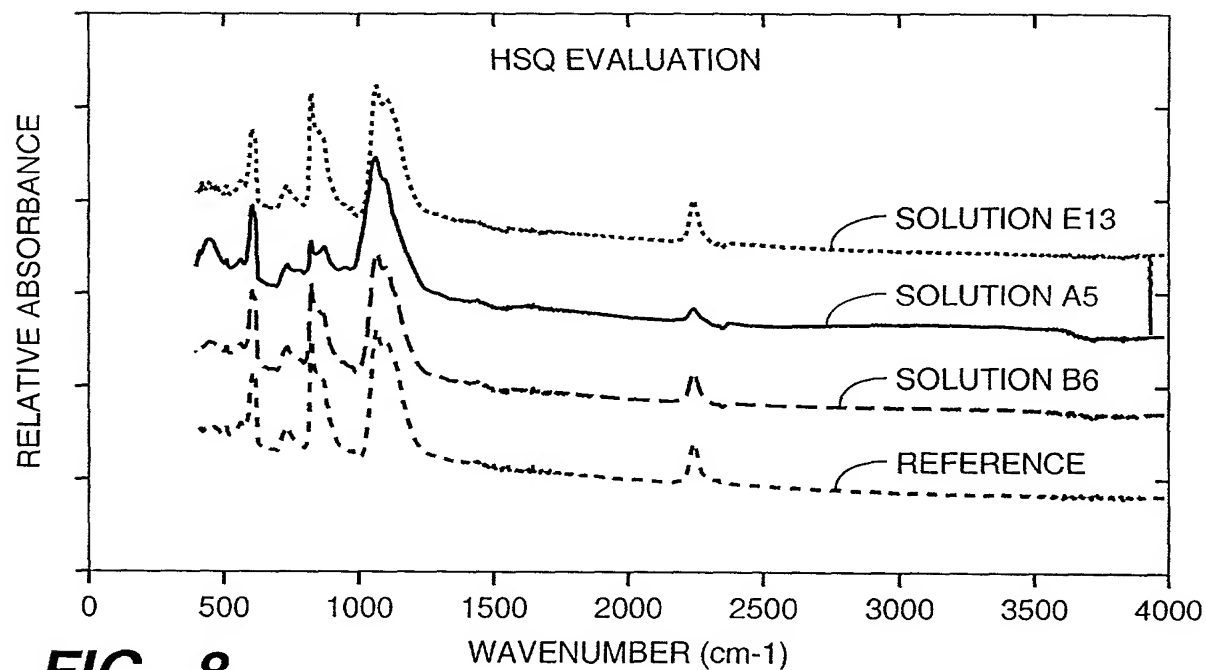


**FIG.\_5**

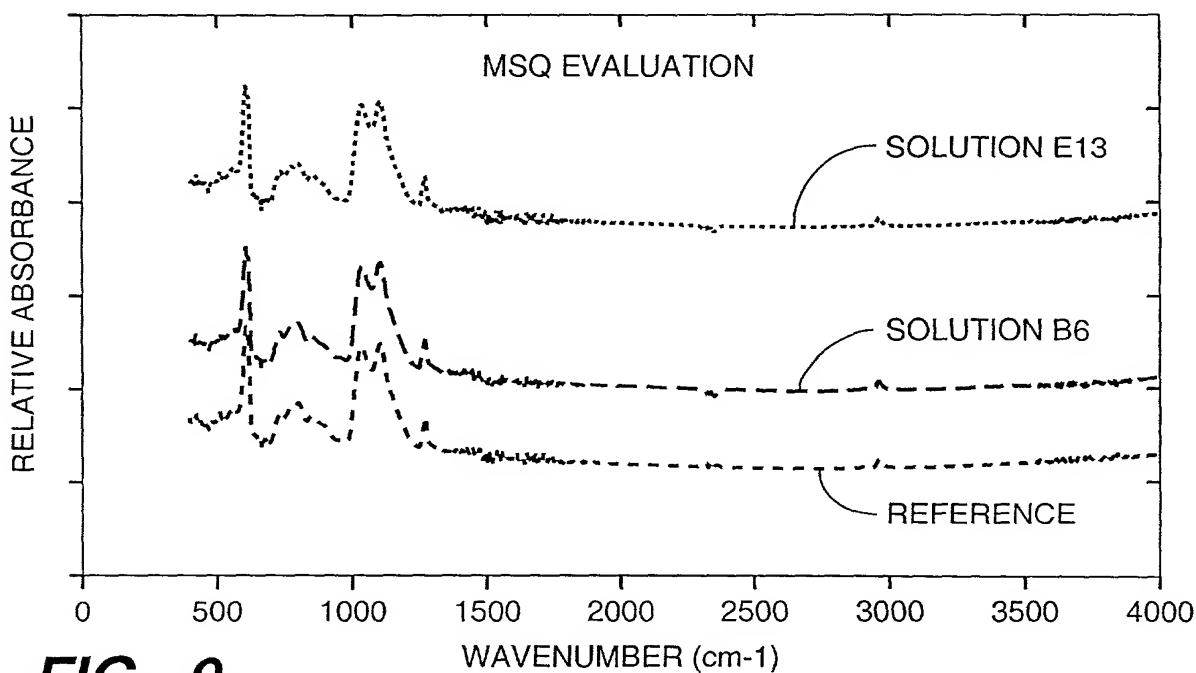


**FIG.\_6**

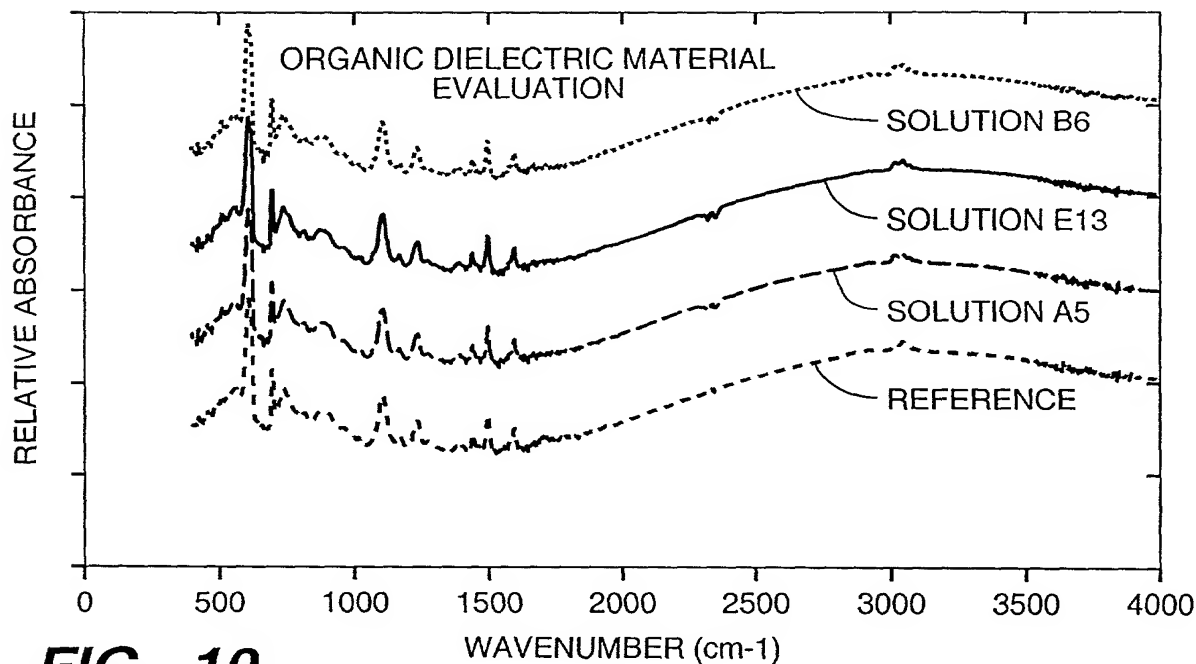
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**FIG. 7****FIG. 8**

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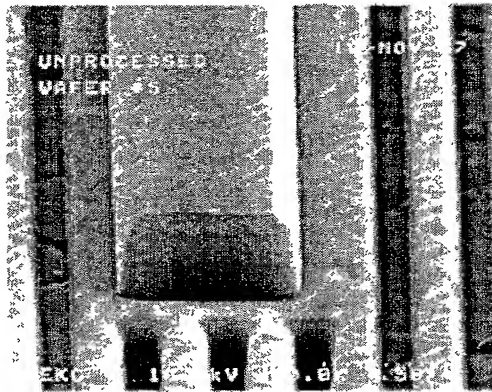


**FIG.\_9**

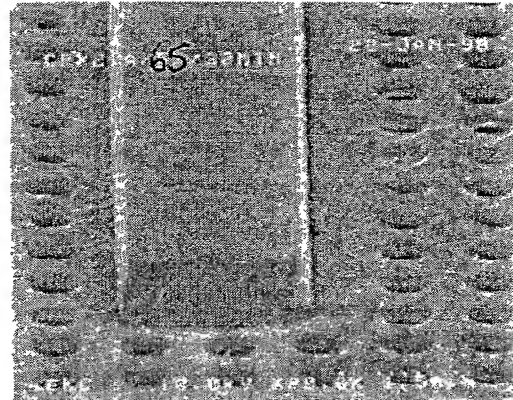


**FIG.\_10**

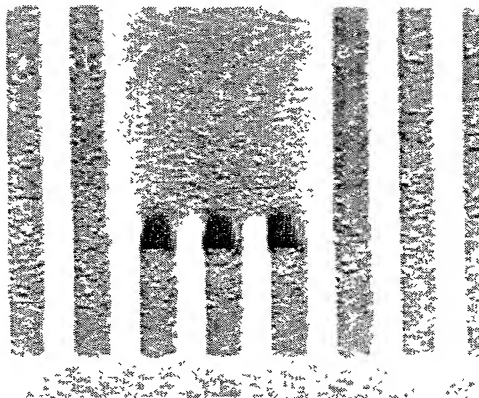
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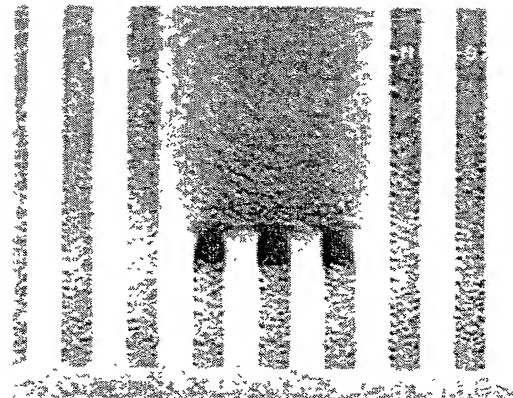
**FIG.\_11**



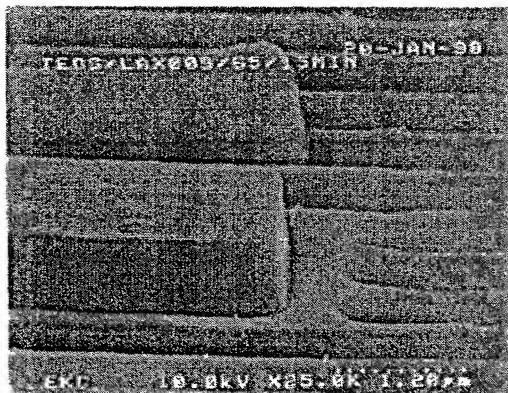
**FIG.\_12**



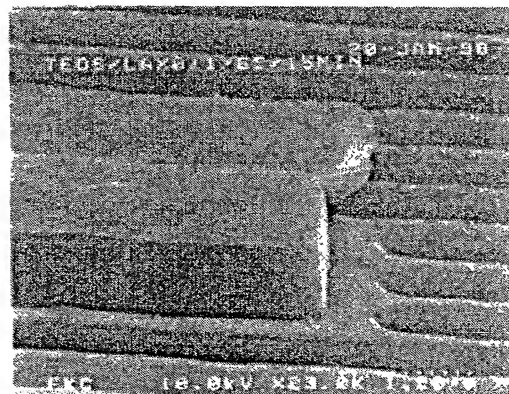
**FIG.\_13**



**FIG.\_14**



**FIG.\_15**



**FIG.\_16**



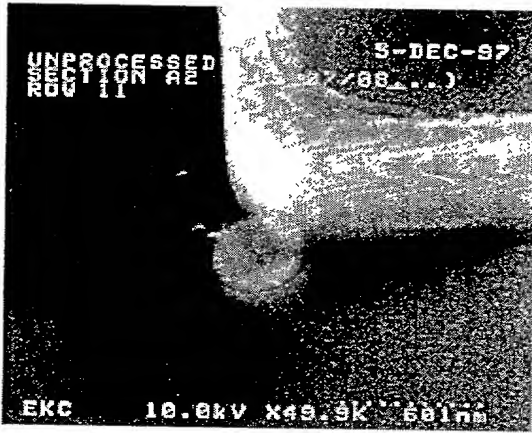


FIG.\_17

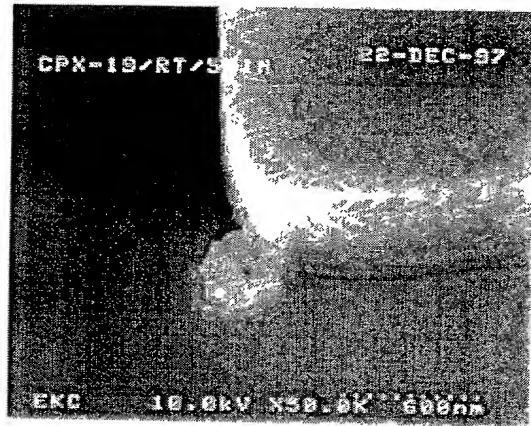


FIG.\_18

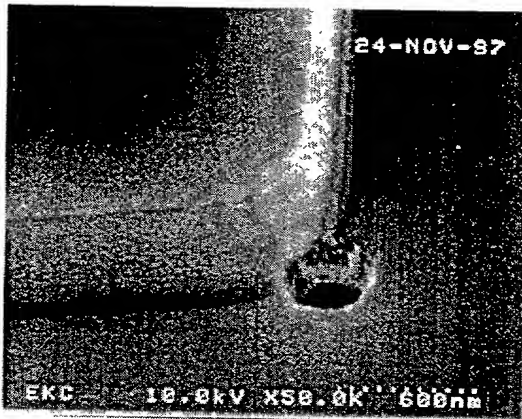


FIG.\_19



FIG.\_20

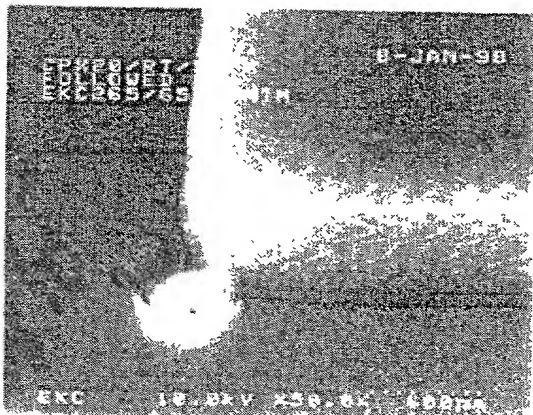


FIG.\_21

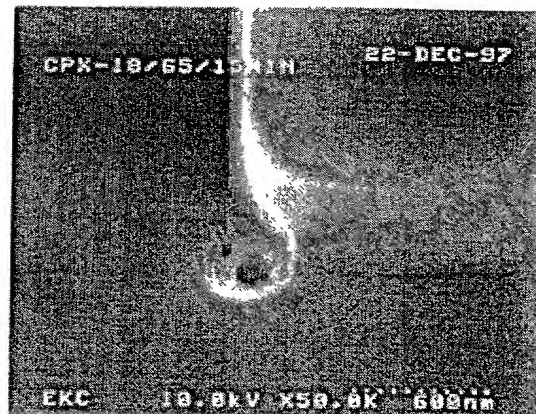
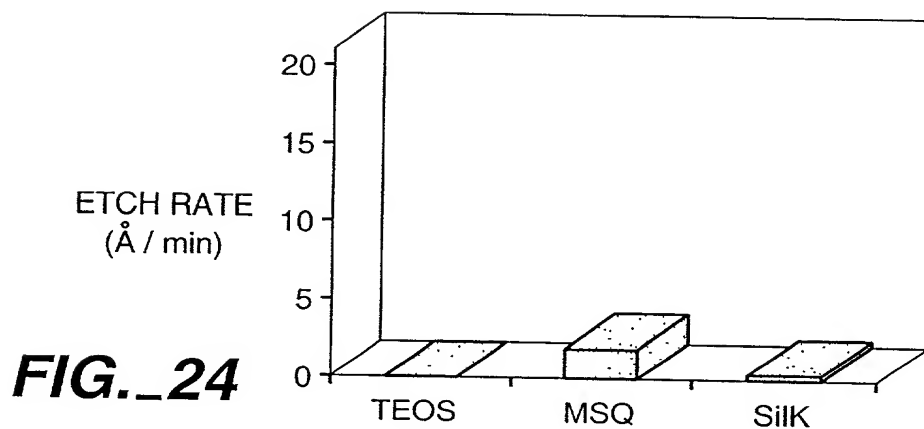
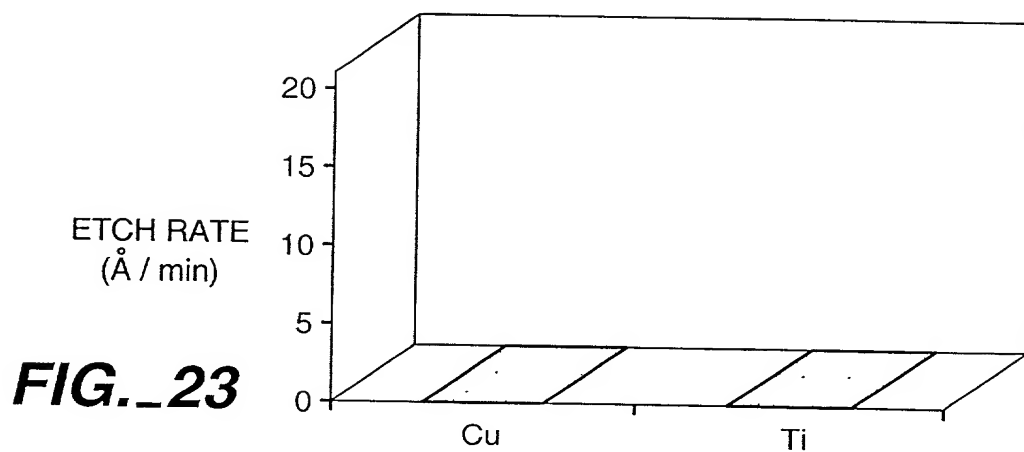


FIG.\_22

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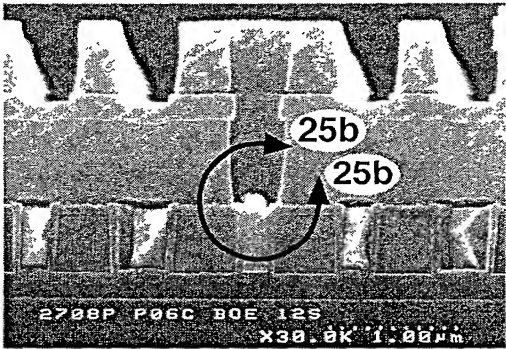


FIG.\_25a

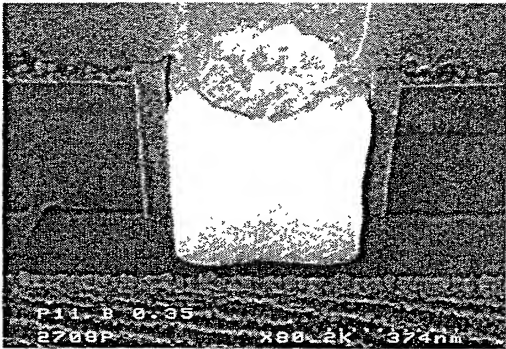


FIG.\_25b

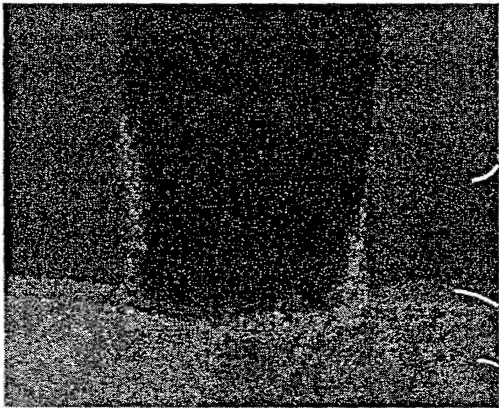


FIG.\_26

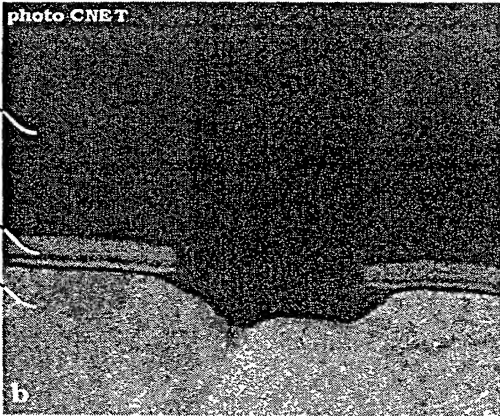


FIG.\_27

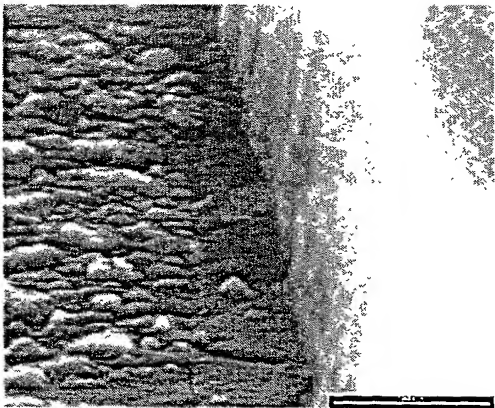


FIG.\_28

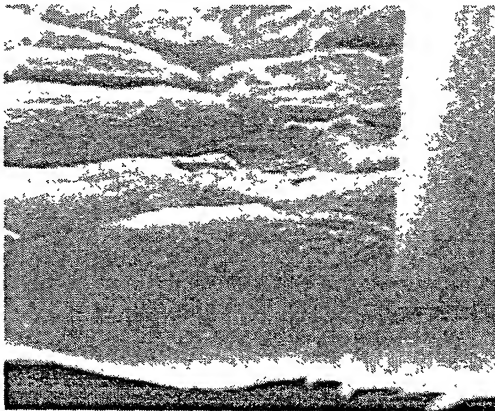
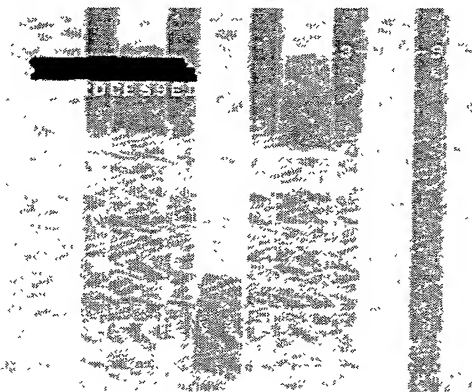
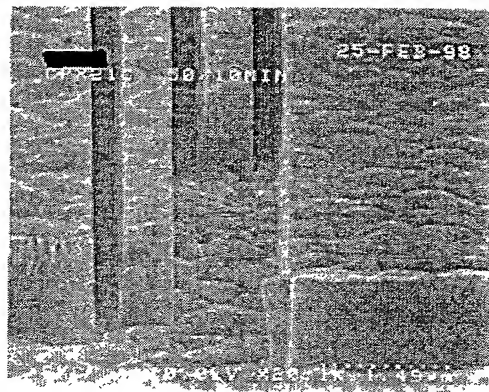


FIG.\_29

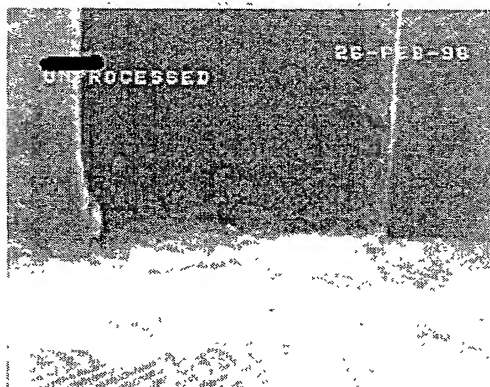
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**FIG.\_30**



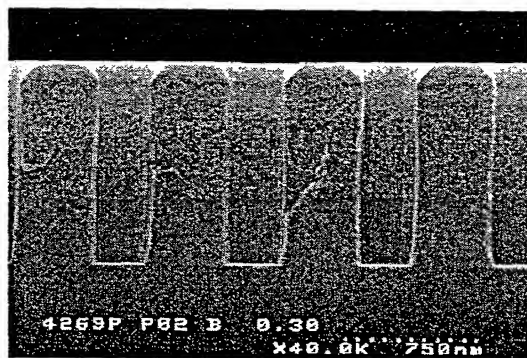
**FIG.\_31**



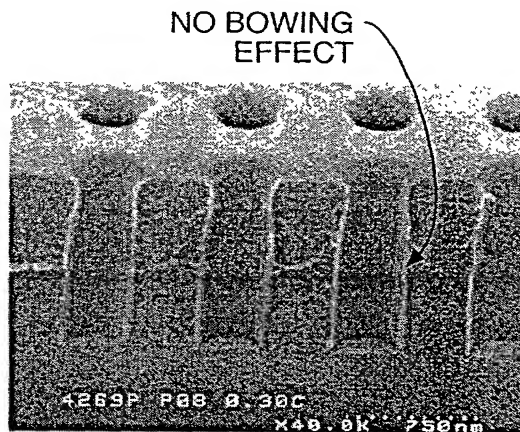
**FIG.\_32**



**FIG.\_33**



**FIG.\_36**



NO BOWING  
EFFECT

**FIG.\_37**

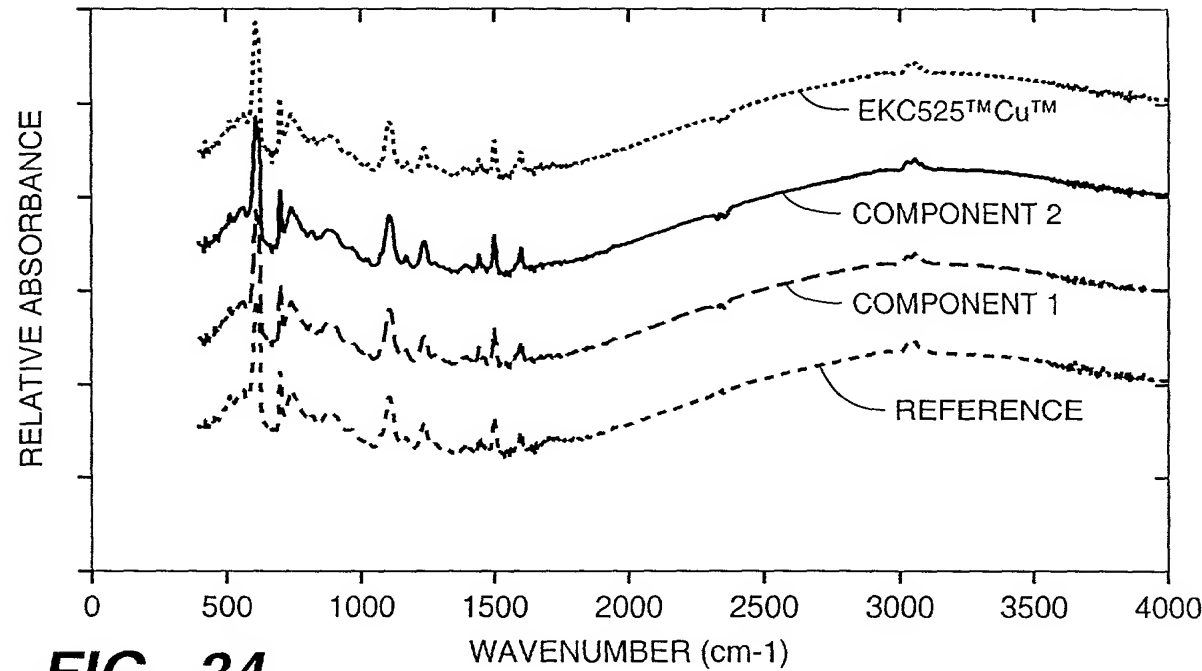


FIG. 34

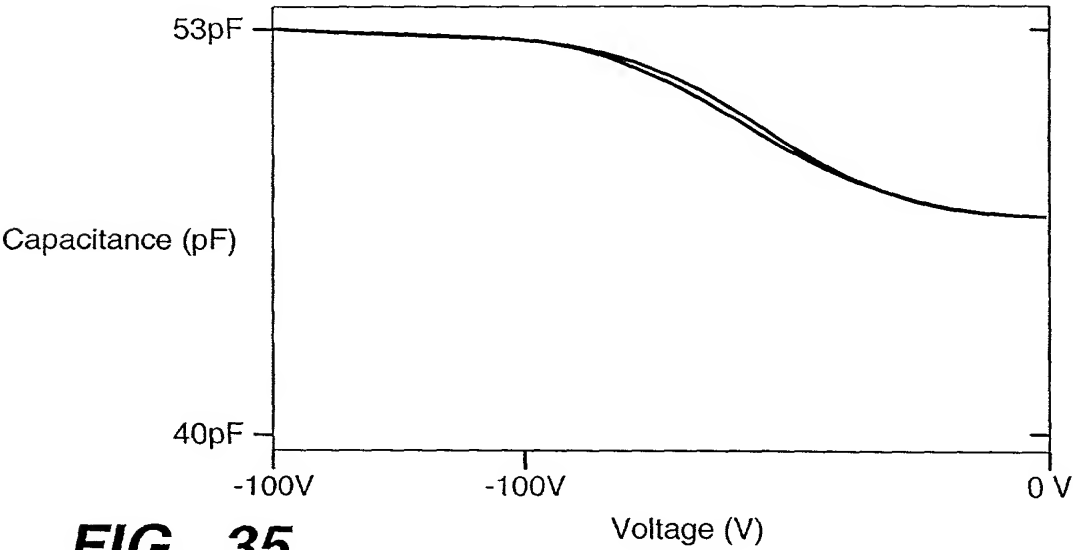
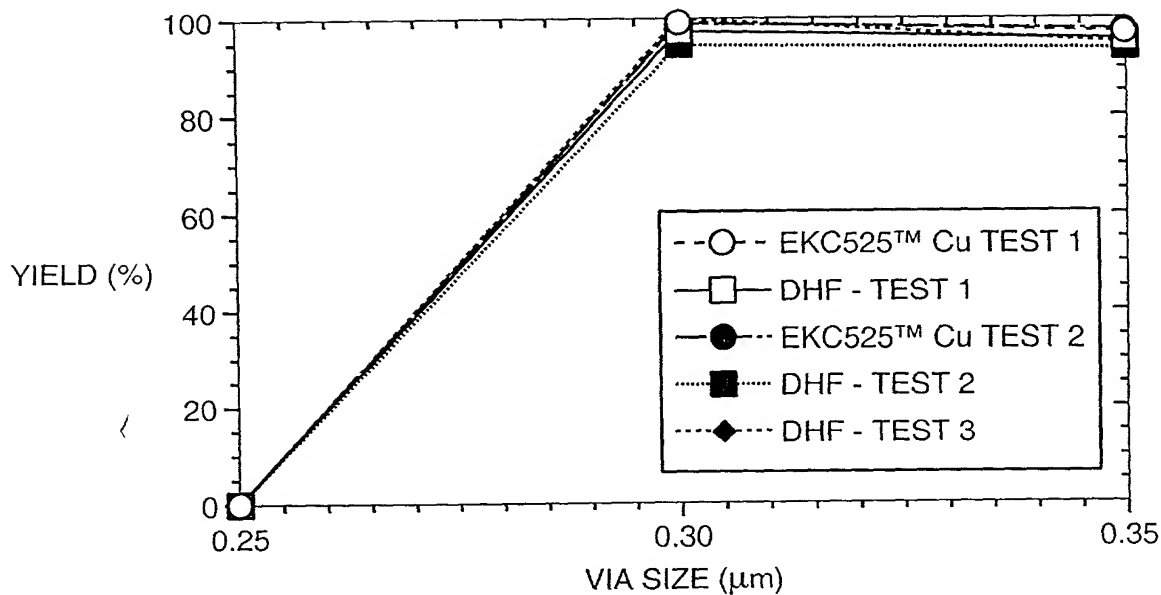
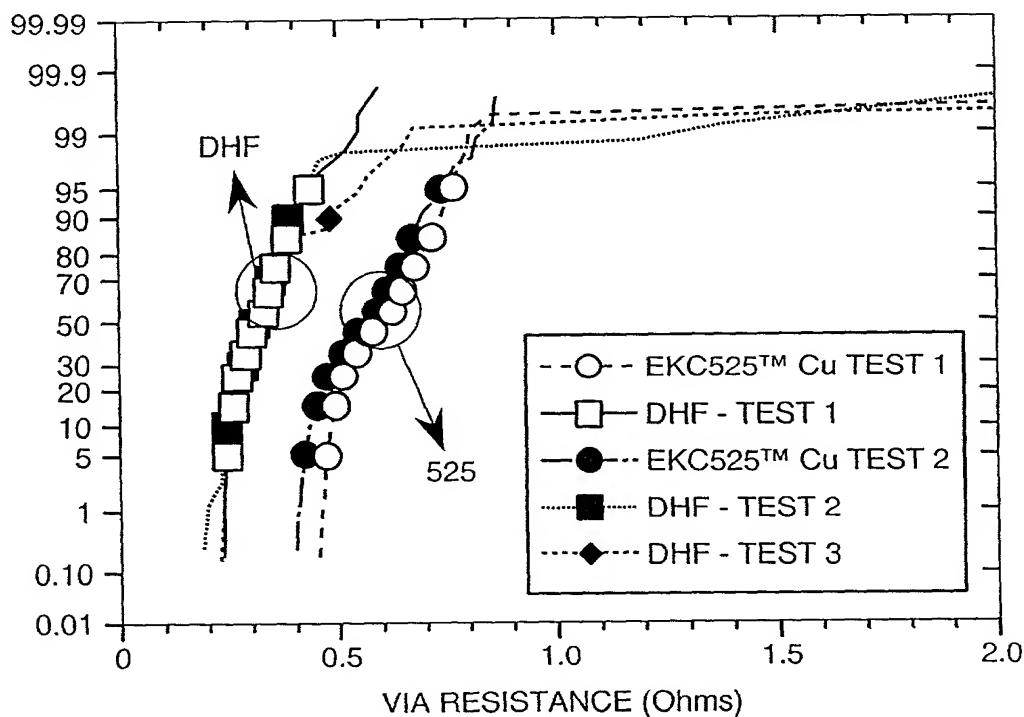


FIG. 35

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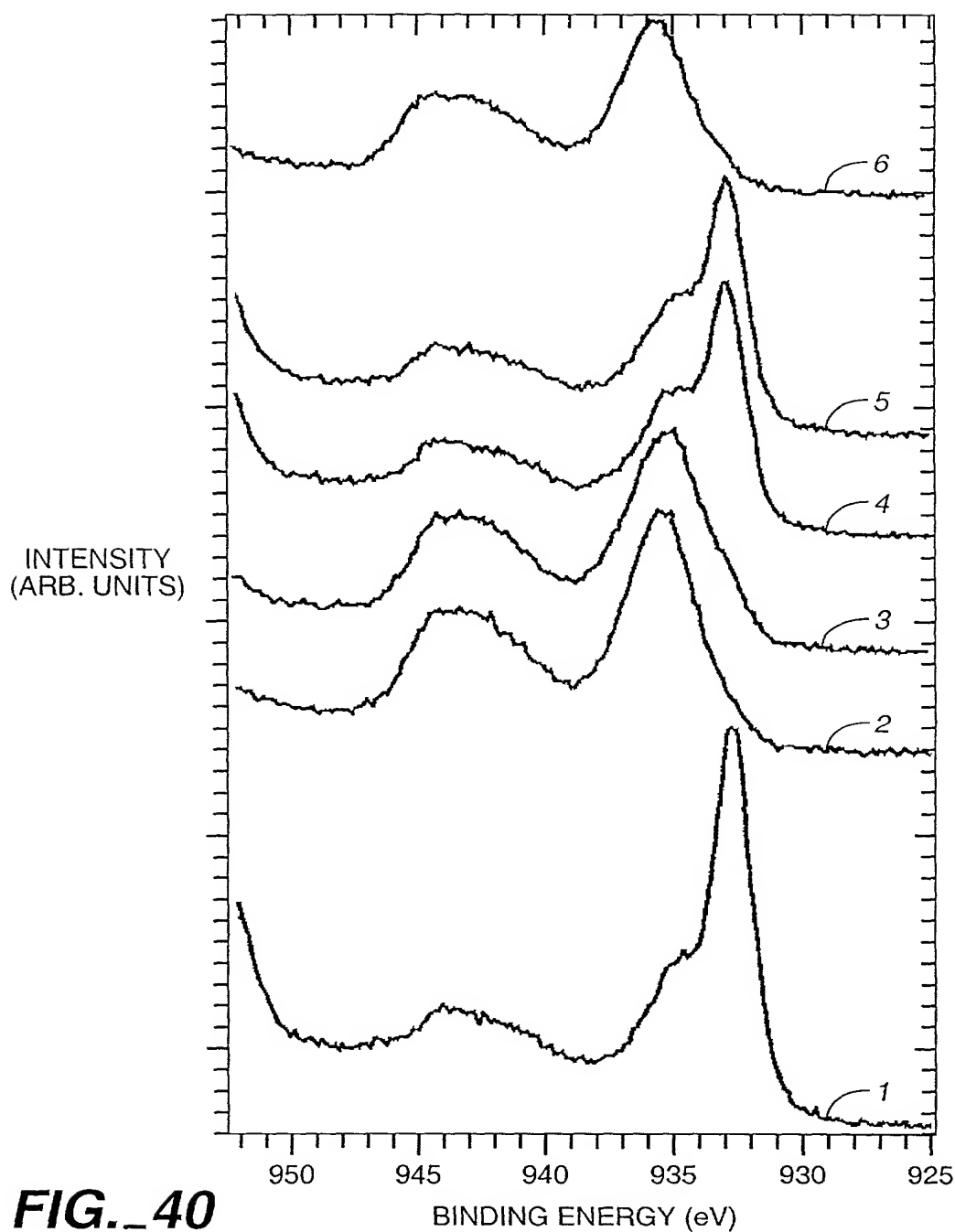
**FIG. 38**

YIELD RESULTS ON COPPER TEOS  
STRUCTURE VERSUS VIA SIZE  
COMPARING DHF AND CLEANING SOLUTION

**FIG. 39**

VIA RESISTANCE HISTOGRAM FOR 0.3 μm VIAS  
COMPARING DHF AND CLEANING SOLUTION

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XPS ANALYSIS OF THE SURFACE COMPOSITION  
OF A COPPER BLANKET BEFORE (1), AFTER  
ETCHING (2 AND 3) AND AFTER CLEANING IN  
THE SOLUTION (4 AND 5) AND IN SOLUTION B8 (6).